

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

5



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
 United States Patent and Trademark Office
 Address: COMMISSIONER FOR PATENTS
 P.O. Box 1450
 Alexandria, Virginia 22313-1450
 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,582	07/30/2003	Norihiro Hara		6199

7590

07/27/2004

MATTINGLY, STANGER & MALUR, P.C.
 Suite 370
 1800 Diagonal Road
 Alexandria, VA 22314

EXAMINER

CHANNAVAJALA, SRIRAMA T

ART UNIT	PAPER NUMBER
----------	--------------

2177

DATE MAILED: 07/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

5

Office Action Summary

Application No.

10/629,582

Applicant(s)

HARA ET AL.

Examiner

Srirama Channavajjala

Art Unit

2177

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/30/2004
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The Drawings filed on 7/30/2003 are acceptable for examination purpose.

Information Disclosure Statement

2. The information disclosure statement filed on 7/30/2003 is in compliance with the provisions of 37 CFR 1.97, and has been considered and a copy was enclosed with this Office Action.

Priority

3. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy of Japanese patent application No. 8-226407, filed on August 28, 1996 has been filed in parent Application No. 08/917,711, filed on August 26, 1997.

Claim Objections

4. Claim 3 is objected to because of the following informalities: "means for selecting the evaluation style upon creation "fo", should be "means for selecting the evaluation style upon creation "for"". Appropriate correction is required.

Double Patenting

5. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

6. A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

7. Claims 2-11 are rejected under 35 U.S.C. 101 as claiming the same invention as that of claim of 2-11 of prior U.S. Patent No. 5,930,800. This is a double patenting rejection.

For example, Claim 2 of the patent is compared to claim 2 of the instant application, is exactly the same language

Also, Claim 3 of the patent is compared to Claim 3 of the instant application is exactly the same language.

Claim 4 of the patent is compared to Claim 4 of the instant application is exactly the same language.

Claim 5 of the patent is compared to Claim 5 of the instant application is exactly the same language.

Claim 6 of the patent is compared to Claim 6 of the instant application is exactly the same language.

Claim 7 of the patent is compared to Claim 7 of the instant application is exactly the same language.

Claim 8 of the patent is compared to Claim 8 of the instant application is exactly the same language.

Claim 9 of the patent is compared to Claim 9 of the instant application is exactly the same language.

Claim 10 of the patent is compared to Claim 10 of the instant application is exactly the same language.

Claim 11 of the patent is compared to Claim 11 of the instant application is exactly the same language.

Art Unit: 2177

8. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

9. Claims 12-15 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-51 of U.S. Patent No. 5,875,334. Although the conflicting claims are not identical, they are not patentably distinct from each other because Chow specifically directed to SQL3 and its control statements that including using procedural language for embedding, generating, analyzing, implementing execution plan, trigger procedures, further creating various modules for implementing user defined function that including both external and internal

routines as detailed in fig 2-6. Therefore, it would have been obvious to one of the ordinary skill in the art at the time of applicant's invention to incorporate the teachings of Chow's database processing using SQL3 , more specifically embedding trigger procedures SQL3 statements to create compound statements, case statements, execution plan or query extractor and transformation rules [see col 14, line 57-65] because that would have allowed both procedural and non-procedural statements to compile, execute on various environments, thus improving performs of global optimization on database queries.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 12-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Chow et al., [hereafter Chow], US Patent No. 5874334.

11. As to Claim 12, 14, Chow teaches a system which including 'database processing method used in a database management system wherein a user inquiry about contents of a database made by the user is analyzed, an execution plan is generated in accordance with results of analyzing said user inquiry and database

Art Unit: 2177

processing is executed in accordance with said execution plan' [see Abstract, col 1, line 47-55], Chow is directed to sql compiler for handing database execution plan, more specifically SQL statements embedded in one of the application programs;

'cataloging information on the correspondence between a SQL user-defined function' [see col 36-60], Chow specifically teaches user-defined functions, implementing in database using SQL statements; 'calling parameters' [col 3, line 42-60, col 5, line 50-56], calling parameters in user defined functions as detailed in col 3, line 43-60, further, it is common knowledge in the art to write simple code for calling parameters for example explained below

```
CREATE FUNCTION ABC
RETURNS BOOL AS
,
    DECLARE
    m RECORD;
    n ALIAS FOR $1;

BEGIN
    SELECT INTO m
        id_dpt
    FROM dpts
    WHERE id_dpt=q;

    IF NOT FOUND THEN
    RETURN FALSE;
    ELSE

    RETURN TRUE;
    END IF;
END;
```

'a format of execution results and an external routine name, said format of execution results being used to determine whether to consider each of table data or to consider a set of table data in order to estimate said SQL user-defined function' [col 4, line 51-67, col 5, line 1-5, col 6, line 63-67, col 7, line 1-3];

'external routine name being designated for implementing said SQL user-defined function, said external routine being implemented as an executable code' [col 7, line 1-14], external routine are refereed as external procedures and they are stoed in a dynamic linking library in external language like C [see col 7, line 1-3], further, C language dynamically loads at run time and call the routines and implemented as executable code are integral part of Chow's teaching;

'determining either a procedure for executing said determining either a procedure for executing said related external routine for each piece of desired data composing said database or a procedure for acquiring a set of results by execution of said related external routine' [col 32, line 4-14, line 23-67], Chow specifically teaches a procedural language such as C language that is implemented in databases particularly embedded query statements, further Chow also specifically suggests creating, defining and execution of external routine as detailed in col 32, col 35-36];

'storing the determined result in an execution plan in accordance with said cataloged information when analyzing the inquiry containing said SQL user-defined function' [col 10, line 19-31].

12. As to Claim 13, most of the limitations of this claim have been noted in the rejection of Claim 12 above. In addition, with respect to the claimed feature Chow disclosed 'format of execution results corresponds to the functional evaluation in which an index is not used and the indexed evaluation in which an index is used' [col 43, line 33-43].

Art Unit: 2177

13. As to Claim 15, Chow teaches a system which including 'database processing method used in a database management system wherein a user inquiry about defined data type in said database management system when the user defines said user-defined data type' [see col 3, 36-67], Chow specifically teaches user defined function with respective SQL3 is part of database system;

'adding information of an external routine to be called on relevant module calling triggers obtained from said information on module calling triggers of said external routine to said execution plan when said user inquiry made by the user is analyzed and said execution plan is generated' [fig 2-5,col 4, line 45-67, col 5, line 1-15, col 6, line 62-67, col 7, line 1-3], Chow specifically teaches creating triggers, and executing plan for example as shown in fig 2-5, further Chow also teaches procedural language like "C" in which user-defined function are used in creating various external and internal routines;

'executing said external routine on said relevant module calling triggers specified in said information on external routine added to said execution plan when database processing is executed in accordance with said execution plan' [col 23, line 45-67, col 27, line 18-22].

Response to Arguments

14. Applicant's arguments at page 5-6 with respect to claims 12-15 have been considered but are moot in view of the new prior art applied to claims 12-15 as detailed above

Conclusion

The prior art made of record

- a. US Patent No. 5875334
- b. US Patent No. 5930800

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- c. US Patent No. 5630114
- d. US Patent No. 6564205
- e. US Patent No. 5873075
- f. US Patent No. 6063133
- g. US Patent No. 5519859
- h. US Patent No. 5361351
- i. US Patent No. 5664173
- j. US Patent No. 5875334
- k. US Patent No. 5694598
- l. WO 3029937
- m. PL/SQL USER'S GUIDE AND REFERENCE:RELEASE 2.2

MARCH 1995, PART NO. A19486-2, CHAPTERS: 6-9

http://www.angelfire.com/pq/oracle2/PLSQL_REFERENCE.pdf


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Srirama Channavajjala whose telephone number is (703) 308-8538. The examiner can normally be reached on Monday-Friday from 8:00 AM to 5:30 PM Eastern Time. The TC2100's Customer Service number is (703) 306-5631.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Breene, can be reached on (703) 305-9790. The fax phone numbers for the organization where the application or proceeding is assigned are as follows:

703/872-9306

(Official Communications)

Any inquiry of general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-9600.

sc 
Patent Examiner.
July 20, 2004.